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Foreign Competition and Its Regional Effects on U.S. Manufacturing Employment, 1975 to 1982

Richard Nolan

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ABSTRACT

This report shows the regional effects of foreign competition on U.S. manufacturing employment from 1975 to 1982. It defines 66 industries which the Department of Labor has identified as being import-sensitive. It then analyzes the employment changes in these industries according to their metropolitan status within States.

Keywords: Foreign competition, manufacturing employment, nonmetro employment, import-sensitive industries.

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CONTENTS

Summary.....	iv
Introduction.....	1
Import-Sensitive Industries.....	2
Metropolitan Areas.....	2
Industries Declining in Metropolitan Areas.....	3
Industries Growing in Metropolitan Areas.....	3
Nonmetropolitan Areas.....	6
Industries Declining in Nonmetropolitan Areas.....	6
Industries Growing in Nonmetropolitan Areas.....	8
Foreign Competition and U.S. Counties.....	8
Conclusions.....	10

SUMMARY

Foreign competition between 1975 and 1982 appears to be a major factor in the decentralization of U.S. manufacturing employment. Despite employment declines in the textile and apparel industries, the southern rural areas have increased their dependence on jobs that face stiff foreign competition.

Nonmetropolitan employment in import-sensitive manufacturing industries declined throughout the Midwest and Northeast but increased in a number of adjacent Southern States. Import-sensitive industries that showed growth in nonmetropolitan areas were either the same industries that declined in metropolitan areas or were in the vulnerable textile and apparel industries.

Import-sensitive industries with the fastest growth rates are mostly high-tech. These industries are primarily located in a small number of metropolitan counties in California and Texas. High-tech industries accounted for a fifth of all import-sensitive jobs.

Although overall employment in the import-sensitive industries remained approximately the same between 1975 and 1982, employment shifts among industries, regions, and States have left over 200 nonmetropolitan counties with severe dislocation problems. It has also put many southern nonmetropolitan counties in a precarious position concerning future manufacturing growth because of an increased dependence on industries for which developing countries have a comparative advantage.

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INTRODUCTION

Manufacturing in the United States has performed poorly relative to other sectors of the economy. The manufacturing share of total jobs has declined precipitously for the last three decades. In the 1950's, manufacturing accounted for nearly a third of all employment. Today that number is closer to a fifth, employing 19.6 million workers in 1984. Between 1975 and 1982, total employment increased 16.4 percent, but manufacturing employment increased only 2.9 percent. The difference in growth rates was due to an expanding service economy, above average productivity gains in manufacturing, and, to a lesser extent, competition from foreign manufacturers.

In response to the 1974 Tokyo Round of tariff reductions, the U.S. Congress passed legislation requiring the Census Bureau and Bureau of Labor Statistics to monitor changes in imports, domestic production, and employment.¹ Its goal was to identify the extent to which employment and production have been adversely affected by foreign competition. The joint effort has led to a quarterly report that publishes national trade and employment figures but lacks any geographic data. This report is an extension of their work by looking at the regional effects of industries facing stiff foreign competition.

This study identifies the industries that have been most sensitive to foreign competition in recent years. Using this group of industries, the regional effects of foreign competition on U.S. manufacturing are examined. Those areas of the country which have been adversely affected by foreign competition in manufacturing are identified through analysis of employment changes at the State, metropolitan area, nonmetropolitan area, and individual county levels between 1975 and 1982.²

¹ Trade Act of 1974 (19 USC 2393), Section 283.

² The 1975-82 period was selected because this period includes the last two complete business cycles. The time period eliminates the effects of the business cycle and thereby provides a better measure of the secular change.

IMPORT-SENSITIVE INDUSTRIES

Sixty-six industries have been identified as import-sensitive.³ These include all 4-digit SIC industries that either (1) had a 1972-81 average level of import penetration of at least 15 percent or (2) had an average annual increase of import penetration of at least 1 percentage point for the same years.

These 66 import-sensitive industries employed slightly over 2 million workers in 1982, or 11 percent of all manufacturing jobs. In the previous seven years, 1975-82, employment in the import-sensitive industries was virtually static, suffering a loss of only 11,000 jobs.

These 66 industries represent a cross-section of American manufacturing and share a common characteristic: foreign manufacturing has a large share of their domestic market or has made significant gains in recent years. Included among these industries are durables like cars, machine tools, radios, and TV's and nondurables like footwear, dresses, and earthenware. Also included are high-tech industries such as scientific instruments, optical lenses, and semiconductors.⁴

Individual growth rates for the 66 import-sensitive industries show a dichotomous pattern. Rapid employment growth in a few large industries offsets declines in a large number of smaller industries. Employment in 39 of the 66 import-sensitive industries declined nationally (1975-82) and 12 of the 39 lost more than 5,000 jobs. Among industries showing positive growth, only three increased employment by more than 5,000. These included semiconductors and related devices (78,000 jobs), outerwear (23,000 jobs), and optical instruments and lenses (20,000 jobs).

METROPOLITAN AREAS

Employment growth in import-sensitive industries in metropolitan counties varied greatly across individual areas and industries during 1975-82, with some industries and areas showing strong growth and others exhibiting substantial declines. There were a few metropolitan counties in California, Texas, and

³ See "Imports and Domestic Employment: Identifying Affected Industries," by Gregory Schoepfle, Monthly Labor Review, August 1982, Vol. 105, No. 8. Import penetration is defined as the ratio of the value of imports to new supply which is the sum of imports plus product shipments. The Standard Industrial Classification (SIC), which is designed by the Office of Management and Budget, provides a mutually exclusive set of industries which conforms to the composition and structure of the economy over the entire field of economic activity.

⁴ There is no universally accepted definition of high-tech. The one used here is narrower than the one used by Dick Richie in his November 1983 Monthly Labor Review article. It includes all industries that have more than 8 percent of its employees in scientific, engineering, and technical occupations or had a given level of expenditures for applied research and development. For further information on this definition of high-tech industries, see Formation and Growth in High Technology Business: A Regional Assessment (Washington D.C.: The Brookings Institute, 1983) Catherine Armington, Candee Harris, and Marjorie Odle.

Florida and to a lesser extent Arizona and Vermont that experienced large gains in high-tech import-sensitive industries. Employment gains in high-tech industries offset losses in other manufacturing industries in metropolitan areas, resulting in virtually unchanged employment levels for U.S. metropolitan areas.

Industries Declining in Metropolitan Areas

The four import-sensitive industries with the largest employment declines in metropolitan areas were all in durable manufacturing--motor vehicles, watches, fans and electric housewares, and textile machines--but declines were not limited to just durable goods manufacturing. Included among the losers was a wide range of textile, apparel, and light manufacturing.

Metropolitan areas most adversely affected by foreign competition were primarily located in the Northeast and Midwest. Nine of the 10 States that lost more than 4,000 jobs in import-sensitive industries were located in the traditional manufacturing belt (fig. 1 and table 1). Maryland was the only State located outside the manufacturing belt and its losses were in durable manufacturing. These nine manufacturing States accounted for 83 percent of all jobs lost in metropolitan areas.

Some of the 43 industries that experienced employment declines in metropolitan areas appear to have shifted production to nonmetropolitan areas. This presumably occurred because labor costs were lower in nonmetro than metro areas.⁵ Seventeen industries declined in metropolitan areas and showed employment gains in nonmetropolitan areas.

Some of the metro losers may have made substantial contributions to nonmetro employment growth. Examples are fans and electric housewares, which lost 7,300 jobs in metro, and gained 1,700 in nonmetro counties; calculating machines, down 3,800 in metro, up 1,100 in nonmetro; scientific instruments, down 300 in metro, up 2,200 in nonmetro; and pulp mills down 260 in metro and up 5,000 in nonmetro. However, most of the shifters made negligible contributions to nonmetropolitan employment.

Industries Growing in Metropolitan Areas

In only a few areas of the country did employment growth in metropolitan counties occur in import-sensitive industries. The metropolitan areas that benefited from such employment growth were located in California, Texas, Florida, Arizona, Delaware, and Vermont. However, within each of these States, most of the job growth was concentrated in a few counties.

Twenty-three import-sensitive industries showed positive growth in metropolitan areas. Five of the seven contributing the most to job growth were industries

⁵Regression results by David Barkley at the University of Arizona show that traditional labor-intensive industries migrated to rural areas to reduce labor costs. For more information see Urban-Rural Shifts of U.S. Manufacturing Activity: Filtering Down or Busting Out. Working Paper #33, Dept. of Agricultural Economics (University of Arizona), Tuscon, Arizona, 1985. David Barkley and Bradley Werth.

Figure 1
**Change In Metropolitan Employment
From Import-Sensitive Industries, 1975-82**

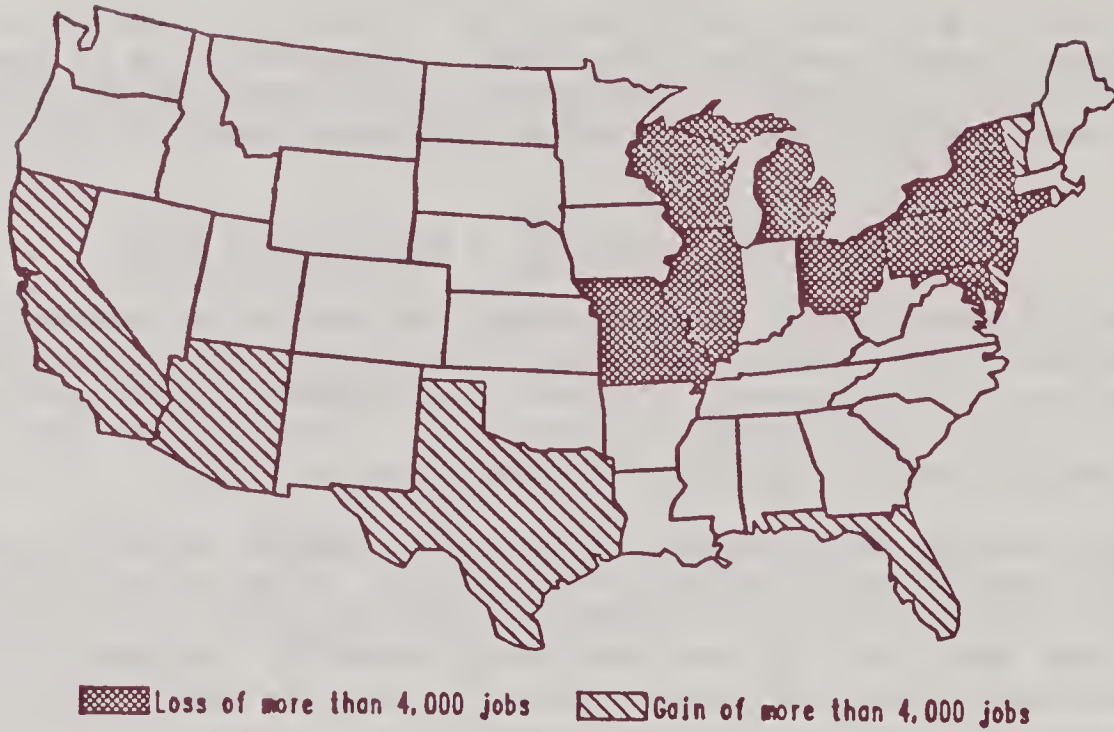


Figure 2
**Change In Nonmetropolitan Employment
From Import-Sensitive Industries, 1975-82**

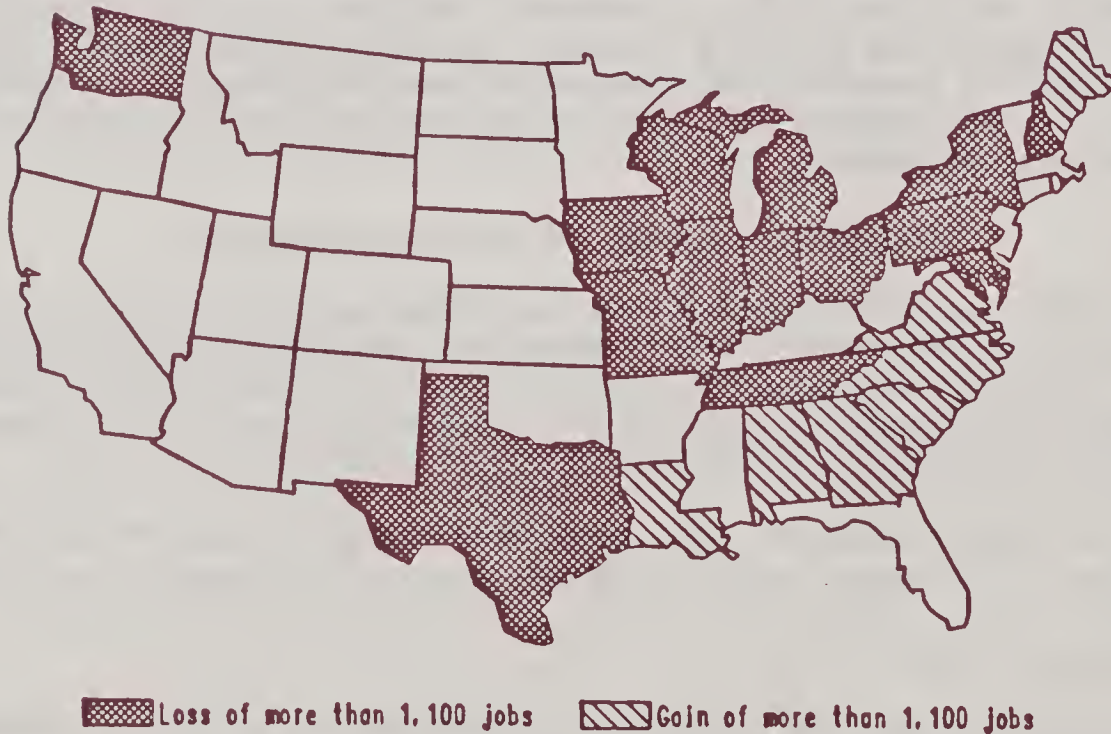


Table 1. Employment change of import-sensitive industries, 1975-82

Rank	State	Total	Metro	Normetro	Major declining or expanding import-sensitive industries
:	:	:	:	:	:
:	:	:	:	:	:
Metro Winners:					Hundreds of jobs
- - - No. of Jobs - - -					
1	California	74899	74376	523	semiconductors (377), dresses (131), women's outerwear (55)
2	Texas	17698	20213	-2515	semiconductors (88), women's outerwear (30), men's footwear (34)
3	Florida	11756	12121	-365	semiconductors (28), scientific instruments (16)
4	Arizona	4082	4995	-913	semiconductors (27), scientific instruments (21)
5	Delaware	3109	4247	-1138	cars (38)
6	Vermont	4899	4133	766	semiconductors (43)
Metro Losers:					
1	Ohio	-22993	-18573	-5420	cars (-96), calculating machines (-23), radio and TV (-14)
2	Illinois	-26435	-17029	-8606	radio and TV (-45), machine tools (-28), men's footwear (-17)
3	Wisconsin	-10009	-17304	-1585	cars (-93), motorcycles and bikes (-25), truck and bus (-25)
4	Pennsylvania	-16944	-15772	-1172	dresses (-56), textile machinery (-26), women's footwear (-24)
5	New York	-17842	-15755	-2087	shirts (-34), watches (-28), suits and coats (-24)
6	New Jersey	-10062	-10062	0	scientific instruments (-38), cars (-28), handbags (-16)
7	Michigan	-13037	-10006	-3031	cars (-78), calculating machines (-22), radio and TV (-13)
8	Missouri	-10044	-6540	-3504	cars (-39), suits and coats (-14)
9	Connecticut	-4966	-4391	-575	rubber footwear (-31), watches (-23)
10	Maryland	-5511	-4342	-1169	cars (-25), blowers and fans (-9)
Normetro Winners:					
1	North Carolina	11931	792	11139	men's shirts (22), pulp mills (22), children's outerwear (19)
2	Alabama	4117	-670	4787	men's shirts (20), athletic goods (12), textile goods (8)
3	South Carolina	5537	1696	3041	women's outerwear (19), men's shirts (13), children's outerwear (10)
4	Georgia	4071	652	3419	pulp mills (14), women's outerwear (11)
5	Maine	3827	1771	2056	pulp mills (13), footwear (11)
6	Virginia	3609	1707	1902	men's shirts (15), children's dresses (14)
7	Louisiana	1579	298	1281	women's outerwear (9), men's underwear (8)
Normetro Losers:					
1	Illinois	-26435	-17829	-8606	radio and TV (-23), watches (-15), women's footwear (-10)
2	Ohio	-23993	-10573	-5420	electrical apparatus (-25), cars (-12), gloves (-9)
3	Tennessee	-2802	2723	-5105	motorcycles and bikes (-22), men's shirts (-21), men's footwear (-10)
4	Missouri	-10044	-6540	-3504	women's footwear (-8), leather goods (-7), athletic goods (-6)
5	Michigan	-13037	-10006	-3031	athletic goods (-7), electrical equipment (-6), women's footwear (-5)
6	Texas	17698	20213	-2515	dresses (-12), brassieres (-8)
7	Indiana	-3850	-1483	-2367	trucks (-9), rubber footwear (-8)
8	Iowa	-2961	-657	-2304	trucks (-17), athletic goods (-4)
9	New York	-17842	-15755	-2087	radio and TV (-17), athletic goods (-8)
10	Washington	-1266	817	-2083	sawmill products (-12), sugar (-5)
11	Wisconsin	-18889	-17304	-1585	men's footwear (-12), machine tools (-5)
12	New Hampshire	-395	902	-1297	rubber footwear (-11), rugs (-3)
13	Pennsylvania	-16944	-15772	-1172	dresses (-27), women's footwear (-7)
14	Maryland	-5511	-4342	-1169	canned seafood (-5), suits and coats (-3)
15	Delaware	3109	4247	-1138	calculating machines (-8)

considered high-tech: semiconductors, optical instruments, electrical goods, and medicinal and botanical products. These five high-tech industries were responsible for 84 percent of all metropolitan employment growth in import-sensitive industries. Semiconductors and related devices accounted for 55 percent of all metropolitan job growth.

California, Texas, and Florida accounted for three-fourths of all new jobs in metropolitan areas. California alone had nearly half of all metropolitan job growth, half of which occurred in Santa Clara County, better known as Silicon Valley. Other metropolitan counties reaping the benefits of growth in the semiconductors and related devices industry were Harris, Texas; Dallas, Texas; Maricopa, Arizona; Chittenden, Vermont; and Brevard, Florida (table 2).

The growth in high-tech jobs has been a metropolitan phenomenon. Non-metropolitan areas have attracted only a small fraction of the jobs created in these industries. For every 48 new high-tech jobs created in metropolitan areas, only one job was created in nonmetropolitan areas. Job growth in import-sensitive industries that have a promising future is biased toward metropolitan areas.

NONMETROPOLITAN AREAS

Nonmetropolitan areas, like metropolitan areas, experienced significant employment declines in import-sensitive industries, concentrated mainly in the Northeast and Midwest but also occurring in other regions. Table 3 lists the 10 nonmetropolitan counties that lost the most import-sensitive jobs during 1975-82. The import-sensitive industries showing the largest employment declines were generally among the textile and apparel industries. However, some of the textile and apparel industries were also the largest contributors to employment growth.

Industries Declining in Nonmetropolitan Areas

Unlike metropolitan areas where employment growth came from industries with expanding markets, such as high-tech industries, growth in nonmetropolitan areas was either in the textile and apparel industries or from industries contracting employment in metropolitan areas. However, employment growth in these industries was not enough to offset the negative effects of foreign competition. Overall, nonmetropolitan areas lost 11,000 jobs in import-sensitive industries between 1975 and 1982.

Fifteen States lost more than 1,100 nonmetropolitan jobs in import-sensitive industries. Nearly all of these are the same States that lost employment in metropolitan areas (figs. 1 and 2). Of these, only Texas, Tennessee, and Washington are located outside the traditional Midwest and Northeast.

Textile and apparel industries have been highly susceptible to foreign competition because of their high degree of labor intensity and low wages. These two characteristics are the same ones that developing countries have a comparative advantage in. The health of the textile and apparel industries is directly related to hundreds of thousands of U.S. jobs and to the prosperity of local economies of the rural South. The closing of some textile mills has fostered the myth that all textile and apparel industries are capitulating to foreign competition. Contrary to conventional wisdom, however, some textile and apparel industries have increased employment.

Table 2. Counties that have lost the most employment from import-sensitive industries ^{1/}

Rank	State	County	Manufacturing employment	Change in import-sensitive industries ^{2/}	Major declining industries
			1982	1975	
			Number	Percent	
1	Michigan	Wayne	226,079	229,341	Car bodies, calculating machines, machine tools
2	Illinois	Cook	579,829	677,495	Radio and TV, men's footwear, calculating machines
3	Missouri	St. Louis	102,118	86,588	Medicinal chemicals, leather goods, suits and coats
4	Wisconsin	Milwaukee	134,574	160,953	Cars, motorcycles, trucks
5	New Jersey	Bergen	103,258	102,477	Cars, instruments,
6	Ohio	Cuyahoga	194,347	230,045	Cars, radio and TV, machine tools
7	New York	Kings	94,992	121,326	Dresses, suits and coats, radio and TV
8	Wisconsin	Kenosha	13,327	19,531	Cars
9	Connecticut	New Haven	85,474	87,748	Rubber footwear, watches, dresses
10	Pennsylvania	Luzerne	35,282	40,108	Dresses, semiconductors, cigars

^{1/} Note: All are metropolitan counties.

^{2/} Rounded to the nearest hundred.

Table 3. Nonmetropolitan counties that have lost the most employment from import-sensitive industries

Rank	State	County	Manufacturing employment	Change in import-sensitive industries ^{1/}	Major declining industries
			1982	1975	
			Number	Percent	
1	Ohio	Crawford	7,790	10,814	Electrical articles
2	Illinois	Adams	8,635	14,309	Radio and TV, cars
3	Tennessee	Lawrence	5,175	4,425	Motorcycles and bikes
4	Illinois	La Salle	8,780	13,705	Watches, electrical articles
5	Oregon	Linn	9,265	9,245	Primary nonferrous metals
6	New York	Genesee	5,422	5,925	Radio and TV
7	Iowa	Winnebago	2,109	3,561	Motor vehicles
8	Virginia	Rockbridge	2,142	1,585	Carpets and rugs
9	New Hampshire	Grafton	5,600	5,161	Rubber footwear, women's footwear
10	Georgia	Laurens	4,787	4,652	Footwear, shirts

^{1/} Rounded to the nearest hundred.

Industries Growing in Nonmetropolitan Areas

Despite stiff foreign competition, some of the most significant employment gains in nonmetropolitan areas were in textile and apparel manufacturing. Outerwear was the largest growing import-sensitive industry accounting for 9,500 new jobs in nonmetropolitan areas. The two categories children's dresses and blouses, and coats, suits and skirts accounted for an additional 5,342 jobs.

The decline of import-sensitive production in metropolitan areas benefited nonmetropolitan areas. Of the 11 import-sensitive industries that created 1,000 new jobs in nonmetro areas, 7 declined in metropolitan areas during the same time period. Overall there were 33 import-sensitive industries with positive growth rates in nonmetropolitan area. Thirteen of them had negative national growth rates. On the other hand, only one industry (leather gloves and mittens) increased in metropolitan areas but was declining nationally.

The geographic distribution of employment shifts in import-sensitive industries has favored the Southern States, with the greatest growth in North Carolina, Alabama, South Carolina, Georgia, Maine, Virginia, and Louisiana. Maine was the only non-Southern State that had more than 1,100 new jobs from import-sensitive industries in nonmetro areas. This was from pulp mills and women's footwear. Roughly 11,000 new jobs were created in nonmetro areas of North Carolina in the men's shirts, pulp mills, and outerwear industries.

FOREIGN COMPETITION AND U.S. COUNTIES

An aggregate analysis at the State and metropolitan levels shows that import-sensitive jobs were lost in the traditional manufacturing areas, with some growth taking place in the rural South. Aggregate net employment changes of just a few thousand in a total of 2 million workers in import-sensitive industries hide the reality that growth rates in local economies vary greatly within the same region. North Carolina received the most rural jobs from import-sensitive industries, but this is no consolation to the rural county in the State whose dress factory closed because of foreign competition. The resulting economic strains may equal or exceed those from a shoe factory shutting down in rural Ohio.

There were 240 U.S. counties that experienced severe dislocation problems from foreign competition. These counties lost more than 10 percent of their 1975 manufacturing employment in import-sensitive industries (1975-82) and experienced job losses of at least 100. Of the 240 counties, 201 are nonmetropolitan counties. An example of a nonmetropolitan county with dislocation problems is Lincoln County, West Virginia. This county lost 145 jobs in the brassieres and allied garments industries. Although some of these jobs were replaced by jobs in other industries (total manufacturing employment dropped from 175 in 1975 to 91 in 1982), job losses in the brassiere industry represented an 84-percent decline in the 1975 manufacturing employment base. This made it the fifth hardest stressed county due to foreign manufacturing competition. A direct relation between foreign manufacturing and the closing of a particular plant cannot always be proved. But the trend is clear: nonmetropolitan counties have been more affected by foreign manufacturing than have metropolitan counties.

Table 4. Changes in import-sensitive industries by metropolitan status

Sic code	Industry	Employment difference 1975-82			Change 1975-82		
		Metro	Nonmetro	Total	Metro	Nonmetro	Total
Metro Gainers:		Number			Percent		
3274	: Semiconductors and related devices	76,358	1,373	77,731	79.1	46.3	78.1
3530	: Optical instruments and lenses	19,575	526	20,101	89.8	100.4	90.1
2369, 39	: Outerwear	13,592	9,496	23,088	17.9	31.6	21.8
3699, 29	: Electrical articles, NEC	3,949	(1,089)	2,860	12.8	-12.3	7.2
3850	: Ophthalmic goods	3,898	(505)	3,393	15.9	-22.3	12.7
3911	: Jewelry, precious metals	3,742	388	4,130	12.1	25.2	12.7
2833	: Medicinals and botanicals	3,424	1,477	4,901	27.9	98.5	35.6
2066	: Chocolate and cocoa products	2,621	121	2,742	31.5	175.4	32.7
3160	: Luggage	2,165	(895)	1,270	15.6	-56.5	8.2
3362	: Vitreous china, food utensils	1,716	(701)	1,015	50.6	-26.1	16.7
Metro Losers:							
3713, 1	: Motor vehicles and bodies	(25,230)	(2,566)	(27,796)	-8.5	-12.7	-8.8
3870	: Watches, clocks, and watchcases	(12,531)	(2,528)	(15,059)	-45.9	-48.5	-46.3
3564, 3634	: Blowers, fans and housewares	(7,346)	1,677	(5,669)	-13.8	8.4	-7.7
3552	: Textile machinery	(6,566)	249	(6,317)	-27.2	7.3	-22.9
3144	: Women's footwear, except athletic	(5,834)	(5,118)	(10,952)	-20.1	-18.2	-19.2
3651	: Radio and TV receiving sets	(5,720)	(1,727)	(7,447)	-11.0	-13.5	-11.5
3553	: Woodworking machinery	(5,533)	(616)	(6,149)	-46.9	-16.8	-39.8
3020	: Rubber and plastic footwear	(5,351)	(4,182)	(9,533)	-28.5	-53.5	-35.8
2337, 63	: Coats, suits and skirts	(5,324)	1,900	(3,424)	-9.5	17.6	-5.1
2085	: Distilled liquor, except brandy	(5,089)	419	(4,670)	-38.2	16.3	-29.4
Nonmetro Gainers:							
2369, 39	: Outerwear	13,592	9,496	23,088	17.9	31.6	21.8
2610	: Pulp mills	(262)	5,042	4,780	-4.6	58.4	33.5
2361	: Children's dresses and blouses	724	3,442	4,166	3.6	43.0	14.7
3810	: Engineering scientific instruments	(336)	2,250	1,914	-0.7	48.7	3.7
2337, 63	: Coats, suits and skirts	(5,324)	1,900	(3,421)	-9.5	17.6	-5.1
3564, 3634	: Blowers, fans and housewares	(7,346)	1,677	(5,669)	-13.8	8.4	-7.7
2833	: Medicinals and botanicals	3,424	1,477	4,901	27.9	98.5	35.6
3674	: Semiconductors and related devices	76,358	1,373	77,731	79.1	46.3	78.1
3944	: Games, toys, and children's vehicles	(1,821)	1,322	(499)	-4.8	25.0	-1.2
3338	: Primary nonferrous metals, NEC	(1,019)	1,135	116	-15.0	34.0	1.1
3574	: Calculating and accounting machines	(3,794)	1,119	(2,675)	-19.5	32.1	-11.6
Nonmetro Losers:							
2335	: Women's and misses' dresses	(4,416)	(6,379)	(10,795)	-3.1	19.8	-6.2
3144	: Women's footwear, except athletic	(5,834)	(5,118)	(10,952)	-20.1	-18.2	-19.2
3143	: Men's footwear, except athletic	(1,952)	(4,195)	(6,147)	-6.5	-18.2	-11.6
3021	: Rubber and plastics footwear	(5,351)	(4,182)	(9,533)	-28.5	-53.5	-35.8
2342	: Brassieres and allied garments	(4,391)	(2,989)	(7,380)	-30.5	-43.6	-34.7
3713, 1	: Motor vehicles and bodies	(25,230)	(2,566)	(27,796)	-8.5	-12.7	-8.8
3870	: Watches, clocks, and watchcases	(12,531)	(2,528)	(15,059)	-45.9	-48.5	-46.3
2271	: Woven carpets and rugs	(513)	(2,403)	(2,916)	-28.1	-60.7	50.4
2429	: Special products sawmills, NEC	(614)	(2,071)	(2,685)	38.3	-48.3	-45.6
3651	: Radio and TV receiving sets	(5,720)	(1,727)	(7,447)	-11.0	-13.5	-11.5

The distribution of the 240 counties shows no discernable regional pattern. These counties radiate out evenly from the lower Ohio Valley and Appalachian States. Kentucky, Missouri, and Tennessee all tied for the most number of counties with dislocation problems with 19 each. They were followed by Texas, Georgia, Illinois, and Mississippi.

Naturally, the more diversified a county's manufacturing, the less likely foreign competition will adversely affect it. Rural counties usually depend on one or two factories for a majority of their manufacturing jobs. A loss of one factory in a nonmetropolitan county will have more of an impact on the local economy than it would in a metropolitan county.

Nevertheless, the county with a diversified manufacturing base may be one that has lost the greatest number of jobs from import-sensitive industries. Table 2 lists the counties that lost the greatest number of jobs. It is not surprising that the top 10 losers are all metropolitan manufacturing counties located in the Midwest and Northeast. Wayne County, Michigan, lost the most jobs because of the decline in durable manufacturing like cars, calculating machines, and machine tools. It is followed by Cook County, Illinois, St. Louis County, Missouri, and Milwaukee County, Wisconsin.

CONCLUSIONS

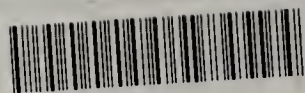
The manufacturing belt in the Northeast and the Midwest has lost many import-sensitive jobs in both metropolitan and nonmetropolitan areas. Those industries that felt the pressure from foreign competition within the last two business cycles have either permanently closed their factory doors, like some of the footwear industry, have gone in search of lower means of production within our borders. A group of light manufacturing and selected textile and apparel industries expanded their production in nonmetropolitan areas of the South between 1975-82.

These results appear to support various economic theories concerning transfer of production from urban areas to rural areas, especially in the South. Wilbur Thompson in his "filter-down theory" claimed that as industries matured, they developed routinized production and thus moved to low-wage areas.⁶ The product cycle theory was concerned with the inputs to a firm as its product goes through three major stages of production. The final stage involves the need for low-wage labor. The employment changes in import-sensitive industries give credence to the general theory of decentralization.

What does this all mean for southern manufacturing? The major macroeconomic forces that spurred the U.S. Congress to pass the 1974 trade bill and monitor import-sensitive industries have not left us. The dollar has stayed at consistently high levels in the foreign currency markets while developing countries are starting to challenge the developed nations on a wider base in the production of manufactured goods. Given the trade weighted value of the dollar in 1974 (when the trade bill was passed) compared with the 1985 value, current international market conditions suggest that any growth in import-sensitive manufacturing, especially in the southern rural areas, may be short-lived.

⁶Thompson, W.R. "Internal and External Factors in the Development of Urban Economics," in Issues in Urban Economics, edited by H.S. Perloff and L. Winger, Baltimore: Johns Hopkins Press, 1968.

There are already signs that this trend has reversed. Since the last business cycle, foreign manufacturing has continued to make inroads into the U.S. textile and apparel industries which are primarily southern industries. Although light manufacturing may replace waning textile jobs, this cannot continue indefinitely. Moreover, since nonmetro America has not attracted its share of high-tech, import-sensitive industries, rural southern counties are becoming more dependent on industries with an uncertain future. The future of low-wage manufacturing industries in the nonmetro South depends, in part, on U.S. interest rate policies as they affect the value of the dollar. But it may also depend on increased productivity and efficiency in southern manufacturing plants.



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